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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,500	12/31/2003	Hitesh Windlass	42P17807	1217
8791	7590	04/26/2005	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			TRAN, MAI HUONG C	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/749,500	WINDLASS ET AL.	
	Examiner	Art Unit	
	Mai-Huong Tran	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 15-24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-14 is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restriction

Application's election without traverse of Group II (claims 1-14) drawn to process of making a semiconductor device is acknowledged for prosecution in the subject application. Accordingly, claims 15-24 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Applicants have the right to file a divisional application covering the subject matter of the non-elected claims.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 5-6 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,812,509 to Xu in view of US Publication No. 2004/0209420 to Ljungcrantz et al. and further in view of Gudesen et al. (6,878,980).

Regarding to claim 1, Xu discloses a method comprising placing a substrate 10 with a ferroelectric polymer layer 14 formed thereon and sputtering (col. 4, lines 18-19) a metal layer 18, 20, 52 on the ferroelectric polymer layer (col. 9, lines 52-54), (col. 9, lines 33-38, col. 10, lines 48-51) (figs. 2, 5, 8).

Xu does not disclose placing a substrate with a ferroelectric polymer layer formed thereon in a chamber. However, Ljungcrantz discloses the substrate with the ferroelectric polymer layer formed thereon in a chamber (page 2, [0013]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a substrate with a ferroelectric polymer layer formed thereon in a chamber, as taught by Ljungcrantz in order to provide a high-purity evaporation source in an effusion cell (page 2, [0013]).

Xu also does not disclose sputtering a metal layer at a reduced flux on the ferroelectric polymer layer. However, Gudesen discloses forming a metal layer at a reduced flux (col. 14, lines 48-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to sputter a metal layer at a reduced flux, as taught by Gudesen in order to improve fatigue resistance (col. 1, line 12).

Regarding to claim 5, Xu discloses the method wherein sputtering comprises forming a metal layer of at least one of TiN, TaN, TiNSi, and TaNSi (col. 4, lines 41-45).

Regarding to claim 6, Xu in view of Ljungcrantz and Gudesen discloses the claimed invention except for the method wherein sputtering comprises sputtering with an ion gun.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to sputter with an ion gun.

Claims 2-4 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,812,509 to Xu in view of US Publication No. 2004/0209420 to Ljungcrantz and Gudesen et al. (6,878,980) and further in view of Chiang et al. (6582569)

Regarding to claim 2, Xu in view of Ljungcrantz et al., and Gudesen et al. discloses the claimed invention except for the method wherein sputtering comprises sputtering in the presence of a collimator. Chiang discloses the method wherein sputtering comprises sputtering in the presence of a collimator (col. 3, lines 22-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to sputter in the presence of a collimator, as taught by Chiang in order to provide electrical connections between large number of active semiconductor devices (col. 1, lines 16-18).

Regarding to claim 3, Chiang discloses the method wherein sputtering may be performed at a pressure less than approximately 10 milliTorr (col. 16, lines 20-24).

Regarding to claim 4, Chiang discloses the method wherein sputtering may be performed at a pressure equal to or less than approximately 2.5 milliTorr (col. 16, lines 20-24).

Allowable Subject Matter

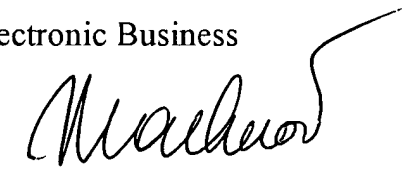
Claims 7-14 are allowed.

Conclusion

Any inquiry concerning this communication on earlier communications from the examiner should be directed to Mai-Huong Tran, (571) 272-1796. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM. The examiner's supervisor, David Nelms can be reached on (571) 272-1787.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mai-Huong Tran